

Serial No. 09/599,148

Attorney Docket No. 20T-035

**REMARKS**

Claims 1-22 are pending. The applicants respectfully request reconsideration and allowance of this application in view of the above amendments and the following remarks.

The applicants acknowledge and appreciate receiving initialed copies of the forms PTO-1449 which accompanied the Information Disclosure Statements filed on October 14, 2004, August 31, 2004, and May 31, 2005.

Applicants further appreciate the Examiner's careful consideration of the remarks filed on May 31, 2005 and the withdrawal of the obviousness rejection in the Office Action of April 19, 2005.

Claims 1-18 were rejected under 35 USC 103(a) as being allegedly unpatentable over Black, et al., U.S. Patent No. 6,377,561 B1 (hereinafter "Black") in view of Gillmer, U.S. Patent No. 3,860,926. The applicants respectfully request that this rejection be withdrawn for the following reasons.

The applicants first note that, as in previous rejections, the Examiner has provided no evidence, as required, of a suggestion or motivation sufficient to motivate one of ordinary skill in the art to combine Black and Gillmer. As best understood, the Examiner appears to be presenting Gillmer as a reference indicating the general skill level in the art, e.g. that gating is widely known. However, since the power gating circuit of the claimed invention is recited with specificity, the Examiner cannot rely on such a general teaching to support an obviousness rejection of the invention as claimed. Further, not only is the evidence insufficient to support the combination, but the references teach away from each other, and Gillmer still fails to address the deficiencies in Black and fails to teach or suggest, for example, the claimed power gating circuit.

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To address the failure in providing evidence to support the combination, applicants note that Black describes a satellite system for packet-by-packet bandwidth on demand. Black is not concerned with transmission as the invention in Black is directed to bandwidth allocation. However, Black references an RF section in col. 8, lines 18 and 19, where a septum polarizer is described for circularly polarizing the independently switched RF signals for transmission at the transmission frequency band, e.g., around 20GHz for the downlink. Gillmer, conversely, is concerned with generating high range information content from wide pulses in a radar application. Gillmer generates a narrow pulse for high range information content but also records the frequency information of the pulse on a magnetic drum to generate a wide pulse for transmission with high average power.

Applicants submit that one of ordinary skill in the art would not look to Gillmer to teach the power gating circuit of the claimed invention for several reasons. First, Gillmer is explicitly interested in *increasing* the average transmission power of the radar pulse. Therefore, it would be unlikely that one of ordinary skill in the art, when presented with the satellite system of Black, would look to Gilmer to teach a power gating circuit to *remove* RF power from at least a portion of a waveform to reduce power consumption. Since Gillmer is directed to a terrestrial radar system, power is simply not a concern as it would be in a satellite system. Secondly, since Gillmer is directed toward generating a narrow pulse (see, e.g. col. 4, line 5) any output signal associated with Gillmer would have a wide frequency spectrum which would be fundamentally incompatible with the tuned septum polarizer described as the transmission means of Black (see, e.g. col. 8, line 19). It is well known in the art that septum polarizers are frequency specific and could not support the impulse transmissions of Gillmer. Alternatively, the system of Gillmer would be rendered inoperable by the septum polarizers as taught by Black since the septum polarizer would essentially filter out all of the impulse energy except the energy falling within

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the passband of the septum polarizer. It is also unclear whether circular polarization itself would render the invention in Gillmer inoperable. Likewise, the system of Black, which relies on mixing and circularly polarizing two RF signals in the septum polarizer, would be rendered inoperable by the use of pulses in the transmitter section.

Gillmer is alleged by the Examiner to teach a power gate input responsive to a power gating signal to remove RF power from at least a portion of the waveform, thereby reducing DC power consumption of the power amplifier as claimed. Applicants importantly note that Gillmer describes that a wide pulse is applied to gated power amplifier 52 to utilize power only during the period *when the pulse is being transmitted* (see, e.g., col. 4, line 58). Thus, gating is used to turn off the amplifier when idle and to apply power when the pulse is transmitted. Gillmer is silent regarding removing RF power *from at least a portion* of a waveform. Since details of the gated power amplifier 52 are undisclosed (presumably because gating is not a central feature of the system in Gillmer), assuming that removal of power from a waveform is even possible would be improper.

Accordingly, for at least the reasons set forth hereinabove, a *prima facie* case of obviousness has not properly been established in that 1) no evidence has been provided of a suggestion or motivation to combine the references; 2) the references teach away from combination; 3) combining the references would render the respective inventions of Black and Gillmer inoperable; and 4) even if properly combinable, the applied art combination still fails to teach or suggest the claimed features as required. Accordingly, it is respectfully requested that the rejection of independent claims 1, 10, and 18 be reconsidered and withdrawn.

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Claims 2-9 and 11-17, by virtue of depending from claims 1 and 10 are allowable for at least the reasons set forth herein above. It is respectfully requested that the rejection of claims 2-9 and 11-17 be reconsidered and withdrawn.

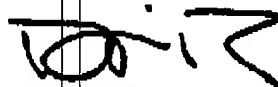
Claims 19-22 were rejected under 35 USC 103(a) as being allegedly unpatentable over Black in view of Gillmer and further in view of Fishbein, U.S. Patent No. 3,611,372. The applicants respectfully request that this rejection be withdrawn for the following reasons.

Claims 19-22, by virtue of depending from claim 18, are allowable for at least the reasons set forth hereinabove. In addition, claims 19-22 are independently allowable in that, for the reasons set forth, the combination of Black and Gillmer is not properly supported and still fails to teach the purported features. Thus, the combination of Black, Gillmer, and Fishbein is necessarily not properly supported.

In view of the foregoing, the applicants respectfully submit that this application is in condition for allowance. A timely notice to that effect is respectfully requested. If questions relating to patentability remain, the examiner is invited to contact the undersigned by telephone.

Please charge any unforeseen fees that may be due to Deposit Account No. 50-1147.

Respectfully submitted,



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